

Appl. No. : 09/933,580

Filed : August 20, 2001

### AMENDMENTS TO THE CLAIMS

Claims 1-12 (Canceled)

13. (Currently amended) A method of identifying a target protein for pharmaceutical intervention comprising:

- (a) selecting a first potential target protein;
- (b) retrieving a first interaction fingerprint comprising a set of values representative of binding strength between said potential target protein and a corresponding set of ligands;
- (c) retrieving a different interaction fingerprint comprising a set of values representative of binding strength between a different protein and said set of ligands;
- (d) comparing said first interaction fingerprint with said second interaction fingerprint;
- (e) repeating steps (c) and (d) for a plurality of different proteins encoded by a selected genome; and
- (f) identifying said potential target protein as a target protein for pharmaceutical intervention based at least in part on said repeated comparisons.

14. (Original) The method of Claim 13, wherein steps (c) and (d) are repeated for substantially all proteins encoded by said selected genome.

15. (Original) The method of Claim 14, wherein said selected genome is the human genome.

16. (Currently amended) A computer-implemented system for biological research comprising:

a database storing both gene sequences and interaction fingerprints characterizing chemical behavior of at least some proteins encoded by said gene sequences; and

a search and computation engine configured to retrieve and compare said interaction fingerprints.

Claims 17-19 (Canceled)